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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,879	09/10/2003	Adrian Hightower	EESI-003	5012

7590 07/10/2006
Enhanced Energy Systems , Inc
1577 Glen Aylsa Avenue
Los Angeles, CA 90041

EXAMINER

FICK, ANTHONY D

ART UNIT PAPER NUMBER

1753

DATE MAILED: 07/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/659,879	HIGHTOWER, ADRIAN	
	Examiner	Art Unit	
	Anthony Fick	1753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>9/10/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 through 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Kornblit (U.S. 5,385,022).

Kornblit discloses a thermoelectric module. Figure 4 shows one thermoelectric module with individual semiconductor elements. As seen in the figure, the element comprises a first section, area close to contact m, and a second section, area close to contact mj, the cross section of the first section is greater than the cross section of the second section. As the module shows a plurality of these elements, claims 1 and 6 are met. The figure also shows the first section adjacent to the hot side, m, the second section adjacent to the cold side, mj, and the first section closer to the hot side than the second section (figure 4 and column 9, paragraph 3). Thus claims 2 through 4 and 7 through 9 are met. If the semiconductor elements as shown in figure 4 are reflected about a radial arc, the smaller inner area does not match the larger outer area.

Therefore, the elements are asymmetrical for that line of symmetry and thus meet claims 5 and 10. The larger cross sectional area of the first sections shown in figure 4 also provides a greater heat path for the first section than the second section. Thus the

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disclosure of Kornblit for claims 1 through 5 also applies to claims 16 through 20 respectively.

Kornblit also discloses the use of multiple modules in a single apparatus. Figure 4 shows the plan view of one disc of a four-disc unit, each disc having the same structure as the disc shown with different internal radii (column 9, paragraph 1). Thus the unit comprises a plurality of thermoelectric modules, each module having a plurality of elements connected electrically in series via electrical conductors (m and mj) to a first side and second side of the modules wherein each of the elements has a first section with a greater cross section than the second section of the element (figure 4). This meets claim 11 as the unit generates power when a temperature gradient is applied to the sides. As stated for the claims above, the first section is adjacent the hot side, is closer to the hot side than the second section which is adjacent to the cold side, as in claims 12 through 14. Also the elements are asymmetrical as explained above, thus meeting claim 15.

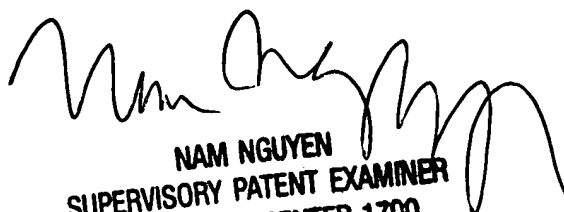
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Fick whose telephone number is (571) 272-6393. The examiner can normally be reached on Monday thru Friday 7 AM to 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Anthony Fick *ADF*
AU 1753
June 30, 2006


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SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700